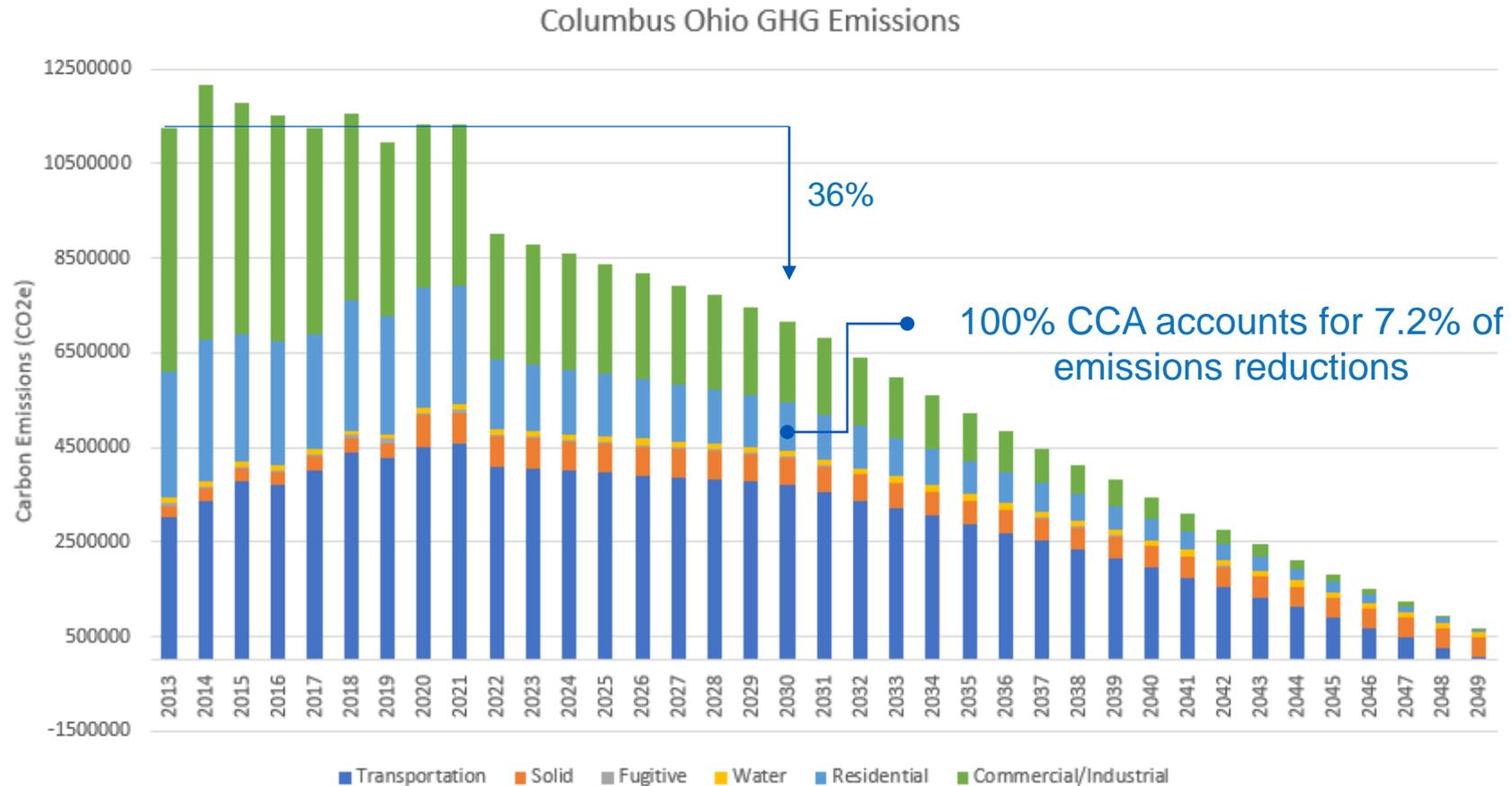


COLUMBUS CLIMATE ACTION PLAN

Work Group Sessions – Sept. 2021

REVISED 2030 MIDPOINT

- More ambitious midpoint 2030 reduction target of 36% reduction from baseline



LIVING ROADMAP - PROCESS

- Short term 2025 timeline is added for planning/feasibility tasks where 8 years was too long
- CAP is a living document, it will need to have updates as progress is made and respond to unforeseen future conditions
 - There will be updates made in 2025
 - 2030 is a key checkpoint for revising the overall Plan
 - There will be a cadence of review & updates every 5 years, with major revisions occurring each decade (2030, 2040)

Climate Solutions the Columbus Way

THE COLUMBUS WAY STRATEGIES

Empower a Community of Climate Leaders

1.1 Incorporate climate action programming into Green Spot

Tracking metrics:

1. # training events
 - 2030 target: 200
2. # community partner signatories
 - 2030 target: 1,000

THE COLUMBUS WAY STRATEGIES

Develop a Clean Energy Economy

2.1 Support green business initiatives

Tracking metrics:

1. # green jobs

- 2030 target: 10,000 new jobs

THE COLUMBUS WAY STRATEGIES

Develop a Clean Energy Economy

2.2 Increase annual sustainable development funding

DRAFT Tracking metrics:

1. \$ PACE funding
 - 2030 target: \$250 mil avg annual project investments

REVISED Tracking metrics:

1. \$ PACE funding
 - 2030 target: \$200 mil avg annual project investments
2. Green Bank or alternate funding methods
 - 2025 target: development of alternative funding mechanism



Timeline

THE COLUMBUS WAY STRATEGIES

Enhance Partnerships to for Climate Preparedness

3.1 Develop a regional adaptive management strategy

DRAFT Tracking metrics:

1. Development of adaptive management plan
 - 2030 target: short-term strategies implemented
 - 2050 target: long-term strategies implemented

REVISED Tracking metrics:

1. Development of adaptation strategy prioritization
 - 2025 target: short-term strategies outlined
 - 2030 target: implementation plan for short-term strategies
 - 2050 target: long-term strategies implemented



Timeline

THE COLUMBUS WAY STRATEGIES

Enhance Partnerships to for Climate Preparedness

3.2 Advocate for state policies that align with resilient, low carbon solutions

DRAFT Tracking metrics:

1. Renewable Portfolio Standard (RPS) requirements
 - 2030 target: 20%
2. Energy Code Requirements
 - 2050 target: zero carbon building codes

REVISED Tracking metrics:

1. Renewable Portfolio Standard (RPS) requirements
 - **2030 target: reinstate RPS**
2. Energy Code Requirements
 - **2030 target: Baseline year increases, Energy code review cycle established**
 - 2050 target: Zero carbon building codes

Language
Change

Sustainable Neighborhoods

NEIGHBORHOODS STRATEGIES

Support a Healthy and Resilient Community

4.1 Establish priority resilience hubs

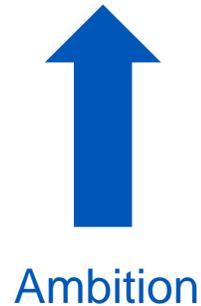
DRAFT Tracking metrics:

1. Neighborhood equity criteria
 - Identify critical gaps by 2030
2. Distance to resilience hubs
 - 15 min walk radius for all residents by 2050

FEEDBACK RECEIVED: 10 yr timeline for 2030 tasks too long

REVISED Tracking metrics:

1. Neighborhood equity criteria
 - Establish prioritization of hub locations by 2030
2. Distance to resilience hubs
 - < 1 mile for all residents by 2050



NEIGHBORHOODS STRATEGIES

Support a Healthy and Resilient Community

4.2 Establish regional emergency alert system for climate hazards

DRAFT Tracking metrics:

1. Regional plan in place by 2030

REVISED Tracking metrics:

1. Regional plan in place by 2025



Timeline

NEIGHBORHOODS STRATEGIES

Implement Land Use Planning Strategies for Healthy Ecosystems

5.1 Increase transit oriented development

DRAFT Tracking metrics:

1. % new construction within $\frac{1}{4}$ mile of transportation access
 - 35% by 2030
 - 60% by 2050

REVISED Tracking metrics:

1. % new construction within $\frac{1}{4}$ mile of transportation access
 - 40% by 2030
 - 60% by 2050
2. # vacant infill properties redeveloped (*metric to be added*)



Ambition

NEIGHBORHOODS STRATEGIES

Implement Land Use Planning Strategies for Healthy Ecosystems

5.2 LED streetlight retrofits

DRAFT Tracking metrics:

1. % conversion to LED
 - 100% by 2030

FEEDBACK RECEIVED: 10 yr timeline for 2030 tasks too long; shorter 1-3 or 3-5 yr periods for 2030 tasks

REVISED Tracking metrics:

1. % conversion to LED
 - 100% by 2030
- No Change

NEIGHBORHOODS STRATEGIES

Implement Land Use Planning Strategies for Healthy Ecosystems

5.3 Increase equitable access to green space

DRAFT Tracking metrics:

1. Neighborhood equity criteria
 - Identify critical gaps by 2030
2. Access to green space within 10 min walk
 - 100% by 2050

FEEDBACK RECEIVED: 10 yr timeline for 2030 tasks too long;
shorter 1-3 or 3-5 yr periods for 2030 tasks

REVISED Tracking metrics*:

1. # parks
 - 430 by 2030
 - 500 by 2050
2. Access to green space within 10 min walk
 - 100% by 2050

Language
Change

*Land Plan has been completed, and outlines equity gaps. Still being finalized with Rec & Parks.

NEIGHBORHOODS STRATEGIES

Implement Land Use Planning Strategies for Healthy Ecosystems

5.4 Implement water adaptation strategies

DRAFT Tracking metrics:

1. # low-impact development installations
 - 25% more by 2030
2. Mid-term Sustaining Scioto strategies
 - 100% implemented by 2050

REVISED Tracking metrics:

1. # low-impact development installations
 - XX by 2030 (*# to be further coordinated*)
2. Mid-term Sustaining Scioto strategies
 - 100% implemented by 2050

Language
Change

NEIGHBORHOODS STRATEGIES

Prepare for Warmer and Wetter Seasons

6.1 Assess and protect assets from the impacts of climate change

DRAFT Tracking Metrics

1. Physical vulnerability assessment
 - Complete vulnerability assessment by 2030
2. Complete assessment actions
 - Complete long term actions by 2050

FEEDBACK RECEIVED: 10 yr timeline for 2030 tasks too long

REVISED Tracking Metrics

1. Physical vulnerability assessment
 - Prioritize short + long term actions by 2025
2. Complete assessment actions
 - 50% short term actions by 2030
 - 100% short + long term actions by 2050



Timeline



Ambition

NEIGHBORHOODS STRATEGIES

Prepare for Warmer and Wetter Seasons

6.2 Reduce urban heat with tree canopy cover

DRAFT Tracking Metrics

1. % minimum tree cover
 - 12% in all neighborhoods by 2030
2. Equitable distribution of tree canopy
 - 100% by 2050

REVISED Tracking Metrics

1. # trees planted in neighborhoods below 22% tree canopy
 - XX trees by 2030 (*changed from % to #, to be confirmed*)
2. % minimum tree canopy
 - 40% by 2050

Language
Change

Buildings

BUILDINGS STRATEGIES

Increase Renewable Energy

7.1 Increase residential rooftop solar

DRAFT Tracking metrics:

1. # MW installed

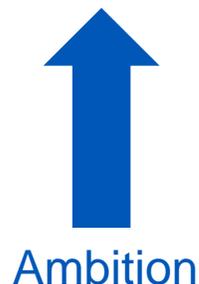
- 10 MW by 2030
- 500 MW by 2050

FEEDBACK RECEIVED: Increase 2030 goals suggestions of 20MW, 200 MW

REVISED Tracking metrics:

1. # MW installed

- **20 MW** by 2030
- 500 MW by 2050



Needed for Greater Impact		
<u>Funding</u>	<u>Partners</u>	Technology

Best suited solar rooftops are prioritized (challenges with historic home roof design / conflict with high tree shade areas) and funding increases to ensure equitable implementation beyond 20MW are challenging in the midpoint timeline. 20 MW is estimated at 2,600+ homes.

BUILDINGS STRATEGIES

Increase Renewable Energy

7.2 Increase commercial on-site solar

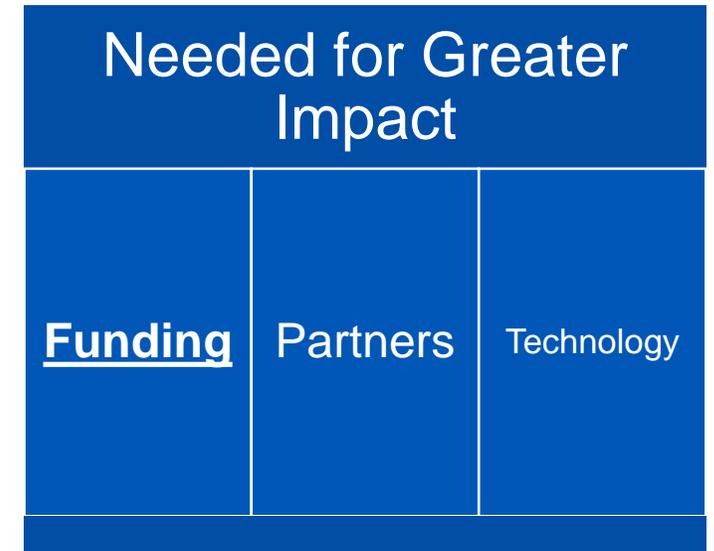
DRAFT Tracking metrics:

1. # MW private installed
 - 250 MW by 2030
2. # MW municipal installed
 - 60 MW by 2030
3. # MW total installed
 - 1 GW by 2050

FEEDBACK RECEIVED: Increase MW targets

REVISED Tracking metrics:

1. # MW private and non-profit installed
 - **600 MW by 2030**
2. # MW municipal installed
 - **175 MW by 2030**
3. # MW total installed
 - 1 GW by 2050



Ambition

BUILDINGS STRATEGIES

Increase Renewable Energy

7.3 Enact clean energy procurement

DRAFT Tracking metrics:

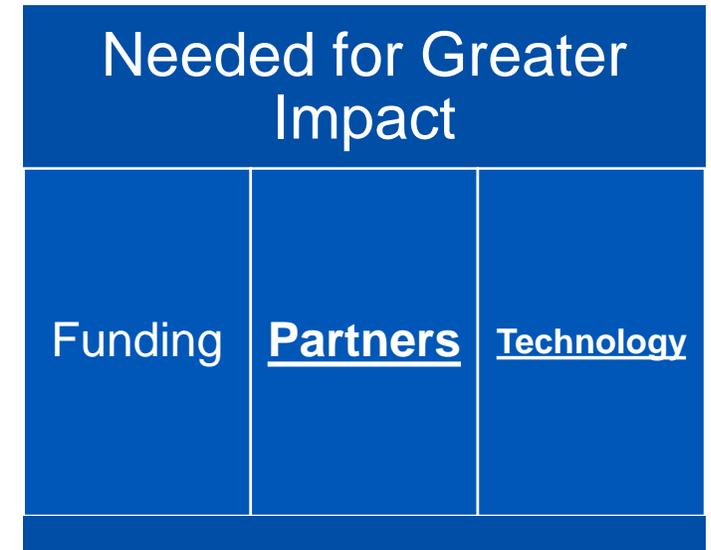
1. % clean energy purchasing
 - 50% residential by 2030
 - 100% municipal by 2030
 - 100% residential by 2050

REVISED Tracking metrics:

1. % clean energy purchasing
 - **100% residential by 2030**
 - **25% commercial by 2030**
 - 100% municipal by 2030
 - 100% residential **and commercial** by 2050



Ambition



BUILDINGS STRATEGIES

Increase Building Efficiency

8.1 Increase energy efficiency

DRAFT Tracking metrics:

1. % energy use reduction
 - 10% commercial by 2030
 - 20% municipal by 2030
 - 30% residential by 2050
 - 50% commercial and municipal by 2050

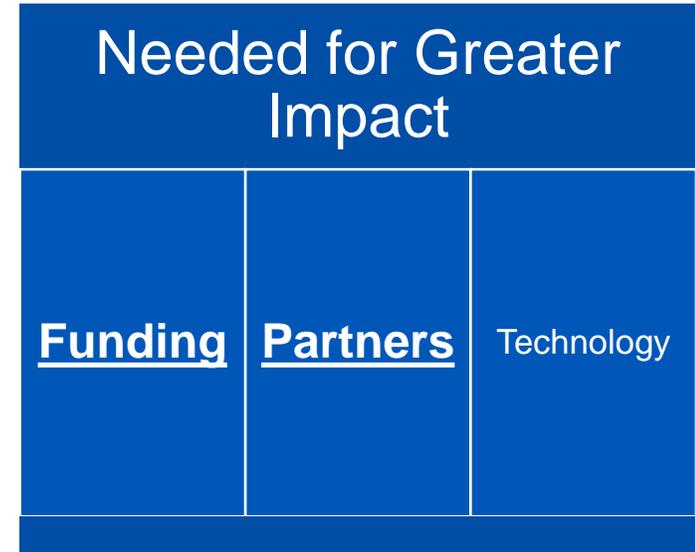
FEEDBACK RECEIVED: Double energy efficiency for residential and commercial by 2030

REVISED Tracking metrics:

1. % energy use reduction
 - **15% commercial by 2030**
 - **25% municipal by 2030**
 - **20% residential by 2030 (added)**
 - 50% **residential**, commercial and municipal by 2050



Ambition



Residential target added for 2030; all 2030 targets are aggressive – and do not include any reductions from on-site renewables.

BUILDINGS STRATEGIES

Increase Building Efficiency

8.2 Increase water efficiency

Tracking metrics:

1. % water use reduction
 - 5% commercial and residential by 2030
 - 10% municipal by 2030
 - 20% community-wide by 2050

BUILDINGS STRATEGIES

Increase Renewable Energy

9.1 Implement zero carbon design requirements

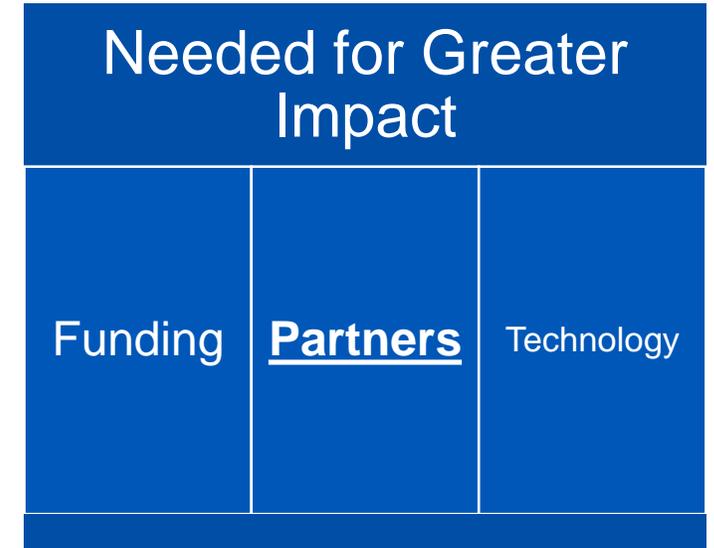
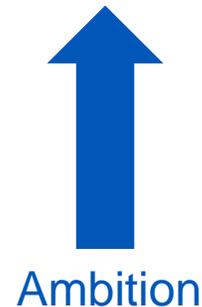
DRAFT Tracking metrics:

1. Pilot zero carbon buildings
 - 4 municipal pilot projects by 2030
 - Zero Carbon design standards by 2050

FEEDBACK RECEIVED: Net zero buildings by 2030

REVISED Tracking metrics:

1. Pilot zero carbon buildings
 - 4 municipal pilot projects by 2030
 - **Zero Carbon municipal design standards by 2030**
 - Zero Carbon design standards by 2050



State regulated building codes are outside of City level control, will require leadership shifts and strong lobbying to implement a mandatory building code requirement.

BUILDINGS STRATEGIES

Adopt Zero Carbon and Resilient Building Standards

9.2 Adopt resilience standards

Tracking metrics:

1. Design Guides

- Pilot and establish design checklist by 2030

Transportation

TRANSPORTATION STRATEGIES

Enable Zero Carbon Vehicles

10.1 Increase private ZEV adoption

Tracking metrics:

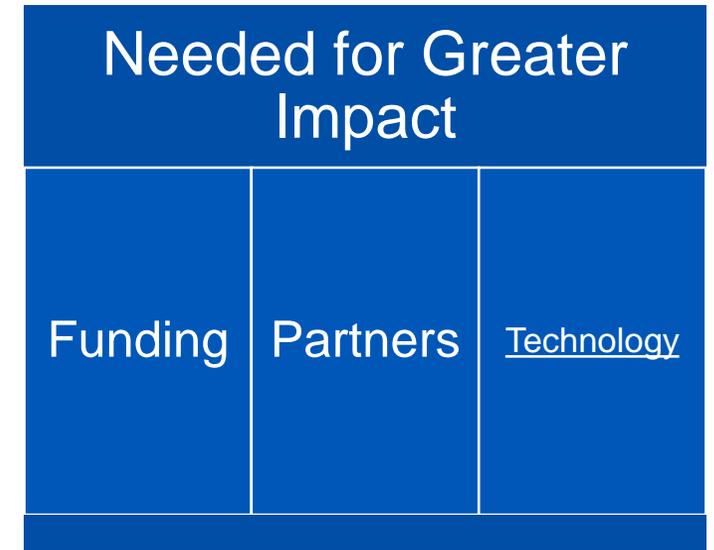
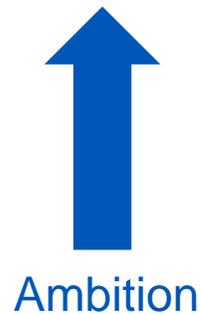
1. % EV registrations
 - 10% by 2030
2. % off street parking EV chargers
 - 1% by 2030
3. % ZEV registrations
 - 100% by 2050

FEEDBACK RECEIVED: 40% vehicle sales electric and 25% parking with chargers

REVISED Tracking metrics:

1. % Zero Emission Vehicle registrations
 - **15% by 2030**
 - 100% by 2050
2. % off street parking EV chargers*
 - 1% by 2030

* Equitable charger implementation strategy and metric for 2030 still under review with Smart Columbus.



CAP focuses on all vehicles, not just new sales as we need better availability for people who can not afford to purchase a new vehicle to impact all cars on the roads.

TRANSPORTATION STRATEGIES

Enable Zero Carbon Vehicles

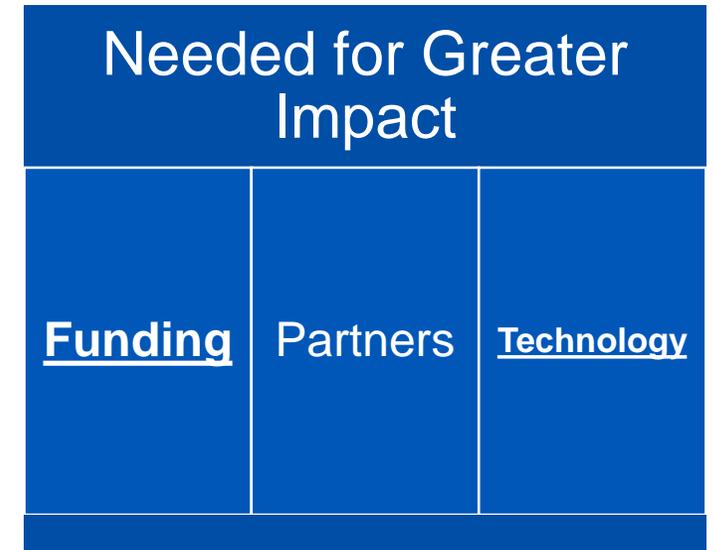
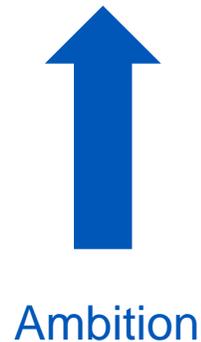
10.2 Implement zero carbon vehicle fleets

DRAFT Tracking metrics:

1. % light duty passenger fleet EVs
 - 50% municipal by 2030*
 - 25% rideshare and private fleets by 2030
2. % ZEV fleets
 - 100% by 2050

REVISED Tracking metrics:

1. % light duty passenger fleet EVs
 - **100% municipal by 2030**
 - **50% rideshare and private fleets by 2030**
2. % ZEV fleets
 - 100% by 2050



TRANSPORTATION STRATEGIES

Enable Zero Carbon Vehicles

10.3 Promote medium/heavy duty zero emission vehicles

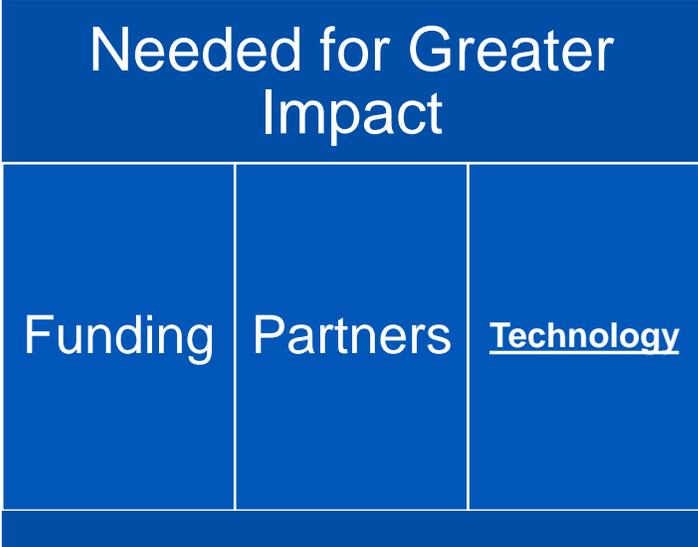
DRAFT Tracking metrics:

- 1. # vehicles piloted
 - 30 vehicles with 2 different uses by 2030
- 2. % medium/heavy duty ZEVs
 - 100% registrations by 2050

FEEDBACK RECEIVED: 50% medium/heavy duty by 2030

REVISED Tracking metrics:

- 1. % medium/heavy duty ZEVs
 - **2% registrations by 2030**
 - 100% registrations by 2050



Majority of medium/heavy duty vehicle impact are not from buses in Columbus GHG Inventory – diversity of necessary electric vehicle options will need to greatly expand.

TRANSPORTATION STRATEGIES

Support Equitable Mode Shift

11.1 Reduce vehicle miles per capita

DRAFT Tracking metrics:

1. % VMT reduction
 - 15% by 2030
 - 40% by 2050

FEEDBACK RECEIVED: Increase VMT to 20% by 2030

REVISED Tracking metrics:

1. % VMT reduction switching to human flexible working options
 - 15% by 2030
 - 40% by 2050

powered and
Language
Change

TRANSPORTATION STRATEGIES

Support Equitable Mode Shift

11.2 Increase transit use

Tracking metrics:

1. % ridership increase
 - 20% by 2030
 - 50% by 2050

TRANSPORTATION STRATEGIES

Support Equitable Mode Shift

11.3 Implement last mile solutions

Tracking metrics:

1. Average distance to mobility hubs
 - < ½ mile for residents by 2050
2. Walkscore and Bikescore
 - 20% increase in both by 2030

Tracking metrics:

1. Average distance to mobility hubs
 - <1 mile for residents by 2030
 - < ½ mile for residents by 2050
2. Walkscore and Bikescore
 - 20% increase in both by 2030

Language
Change

Waste

WASTE STRATEGIES

Reduce Waste Generated

12.1 Reduce landfilled organic waste

Tracking metrics:

1. % organic waste reduction
 - 50% by 2030
 - 90% by 2050

WASTE STRATEGIES

Reduce Waste Generated

12.2 Reduce recyclable waste sent to landfill

Tracking metrics:

1. % reduction in recyclable waste
 - 40% by 2030
 - 95% by 2050

WASTE STRATEGIES

Increase Upstream Waste Diversion

13.1 Support circular economy organizations

DRAFT Tracking Metrics

1. # green jobs
 - 10% of green jobs by 2030
2. % increase in circular economy organizations
 - 100% by 2050 (from 2030 baseline)

REVISED Tracking Metrics

1. # green jobs
 - 1,000 new jobs by 2030
2. % increase in circular economy organizations
 - 100% by 2050 (from 2030 baseline)

Language
Change